C-A-S- 6-11-01

=> d fbib abs hitstr 1-15

L12 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 2001:31448 CAPLUS
DN 134:86546
TI Synthesis of (R)- and (S)-aminocarnitine and their derivatives starting from D- and L-aspartic acid
IN Giannessi, Fabio; Dell'Uomo, Natalina; Tinti, Maria Ornella; De Angelis, Francesco
PA Sigma-Tau Industrie Farmaceutiche Riunite S.p.A., Italy
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

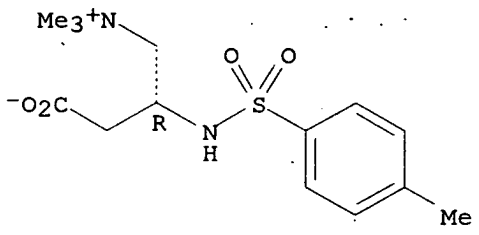
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001002341	A1	20010111	WO 2000-IT258	20000623

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

IT 1999-RM418 A 19990630

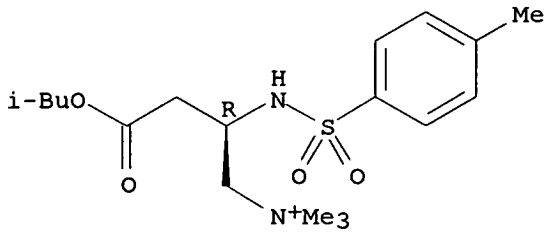
OS MARPAT 134:86546
AB A process is described for the prepn. of (R)- or (S)-aminocarnitine and their N-substituted derivs. from aspartic acid with the same configuration as the aminocarnitine desired. Thus, (R)-3-(tosylamino)butano-4-lactone [available from (R)-aspartic acid] was treated with iso-Bu alc. and Me3SiI in CH2Cl2 and the iodo ester treated with Me3N in chloroform-iso-Bu alc. and then 48% HBr and phenol to afford (R)-aminocarnitine.
IT **108919-55-7P 318249-46-6P 318249-49-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of (R)- and (S)-aminocarnitine and their derivs. starting from D- and L-aspartic acid)
RN 108919-55-7 CAPLUS
CN 1-Propanaminium, 3-carboxy-N,N,N-trimethyl-2-[[(4-methylphenyl)sulfonyl]amino]-, inner salt, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 318249-46-6 CAPLUS
CN 1-Butanaminium, N,N,N-trimethyl-2-[[(4-methylphenyl)sulfonyl]amino]-4-(2-methylpropoxy)-4-oxo-, iodide, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

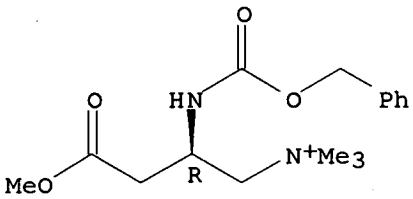


RN 318249-49-9 CAPLUS
CN 1-Butanaminium, 4-methoxy-N,N,N-trimethyl-4-oxo-2-[[(phenylmethoxy)carbonyl]amino]-, (2R)-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

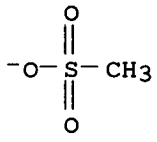
CRN 318249-48-8
CMF C16 H25 N2 O4

Absolute stereochemistry.



CM 2

CRN 16053-58-0
CMF C H3 O3 S



RE.CNT 2
RE

(1) Charles, W; HELVETICA CHIMICA ACTA 1996, V79, P1203
(2) Sigma Tau Ind Farmaceuti; EP 0636603 A 1995 CAPLUS

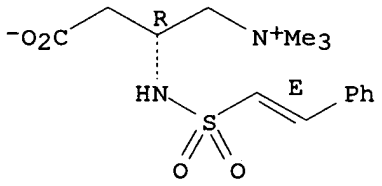
L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1999:753199 CAPLUS
DN 131:351673
TI Preparation of **carnitine**-related compounds having reversible inhibiting activity of **carnitine** palmitoyl-transferase
IN Giannessi, Fabio; Marzi, Mauro; Minetti, Patrizia; De Angelis, Francesco; Tinti, Maria Ornella; Chiodi, Piero; Arduini, Arduino
PA Sigma-Tau Industrie Farmaceutiche Riunite S.P.A., Italy
SO PCT Int. Appl., 106 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9959957	A1	19991125	WO 1999-IT126	19990511
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
			IT 1998-MI1075 A	19980515
AU 9938473	A1	19991206	AU 1999-38473	19990511
			IT 1998-MI1075 A	19980515
			WO 1999-IT126 W	19990511
EP 1077925	A1	20010228	EP 1999-921135	19990511
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
			IT 1998-MI1075 A	19980515
			WO 1999-IT126 W	19990511

OS MARPAT 131:351673
AB Compds. X+-CH2CH(Z)CH2-Y- [X+ = N+R1R2R3 or P+R1R2R3, where R1, R2, R3 = H, alkyl, CH:NH(NH2), NH2, OH or two or more R1, R2, and R3 together with the nitrogen atom form a mono- or bicyclic heterocyclic system (at least one of R1, R2, and R3 is different from hydrogen); Z = OR4, OCO2R4, OCONHR4, OCSNHR4, OCSOR4, NHR4, NHCOR4, NHCSR4, NHCO2R4, NHCSOR4, NHCONHR4, NHCSNHR4, NHSOR4, NHSONHR4, NHSO2R4, NHSO2NHR4, SR4, where R4 = (un)substituted alkyl; Y- = CO2-, PO3H-, OPO3H-, tetrazolate-5-yl], as (R,S) racemic mixts. or single R or S enantiomers, or their pharmaceutically acceptable salts were prepd. as inhibitors of **carnitine** palmitoyl-transferase (CPT). Thus, R,S-4-trimethylammonium-3-(nonylcarbamoyl)aminobutyrate, prepd. by reaction of nonyl isocyanate with aminocarnitine inner salt, showed IC50 = 0.5 .mu.M/I for inhibition of CPT 1 curve of .beta.-hydroxybutyrate prodn. in rat hepatocytes.
IT **250694-24-7P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of **carnitine**-related compds. having reversible

inhibiting activity of **carnitine** palmitoyl-transferase)
RN 250694-24-7 CAPLUS
CN 1-Propanaminium, 3-carboxy-N,N,N-trimethyl-2-[[[(1E)-2-phenylethenyl]sulfonyl]amino]-, inner salt, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RE.CNT 6
RE
(1) Affymax Technologies; WO 9325197 A 1993 CAPLUS
(2) Cornell Research Foundation; WO 8504396 A 1985 CAPLUS
(3) Gandour, R; US 5196418 A 1993 CAPLUS
(4) Sandoz; EP 0574355 A 1993 CAPLUS
(5) Sang, J; WO 9800389 A 1998 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

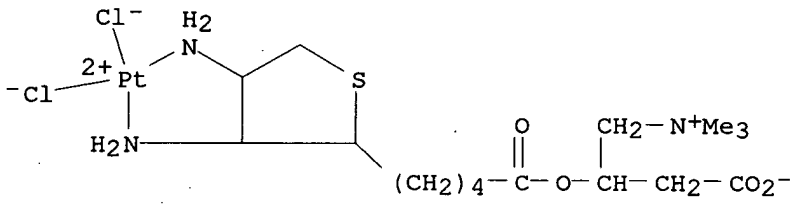
L12 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1997:119101 CAPLUS
DN 126:126892
TI Drug mitochondrial-targeting agents
IN Steliou, Kosta
PA Trustees of Boston University, USA
SO PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9639193	A2	19961212	WO 1996-US10293	19960606
	WO 9639193	A3	19970605		
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
				US 1995-468844	19950606
	AU 9663853	A1	19961224	AU 1996-63853	19960606
				US 1995-468844	19950606
				WO 1996-US10293	19960606
	EP 831918	A2	19980401	EP 1996-923305	19960606
	R: CH, DE, FR, GB, LI, SE				
				US 1995-468844	19950606
				WO 1996-US10293	19960606

OS MARPAT 126:126892
AB The invention relates to novel targeting drug agents that are targeted for

entry into the mitochondria. More specifically, the agents are cisplatin derivs. called mitoplatins which are useful as anti-tumor agents. Mitoplatins are named for their targeting to the mitochondrial DNA via the **carnitine**-acylcarnitine translocase system. The invention also relates to methods of synthesizing mitoplatins, compns. of matter contg. mitoplatins and methods of using the mitoplatins. Compds. of the invention, in addn. to being useful for the treatment of neoplasms, may also be used to treat arthritic disorders.

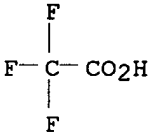
IT **186253-73-6**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug mitochondrial-targeting agents, and prepn. thereof)
RN 186253-73-6 CAPLUS
CN Platinum, [3-carboxy-2-[[5-[3,4-di(amino-.kappa.N)tetrahydro-2-thienyl]-1-oxopentyl]oxy]-N,N,N-trimethyl-1-propanaminiumato]dichloro-, [SP-4-3-[2S-[2.alpha.(S*),3.alpha.,4.alpha.]]]- (9CI) (CA INDEX NAME)



IT **186253-67-8P 186253-69-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction; drug mitochondrial-targeting agents, and prepn. thereof)
RN 186253-67-8 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-[[5-(3,4-diaminotetrahydro-2-thienyl)-1-oxopentyl]oxy]-N,N,N-trimethyl-, [2S-[2.alpha.(S*),3.alpha.,4.alpha.]]-, hexafluorophosphate(1-), bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 76-05-1
CMF C2 H F3 O2



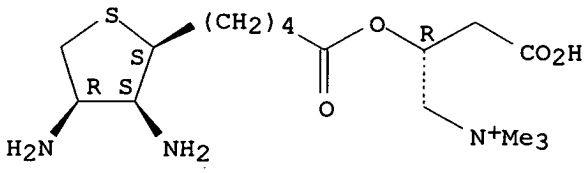
CM 2

CRN 186253-66-7
CMF C16 H32 N3 O4 S . F6 P

CM 3

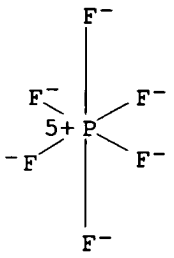
CRN 186253-65-6
CMF C16 H32 N3 O4 S

Absolute stereochemistry.

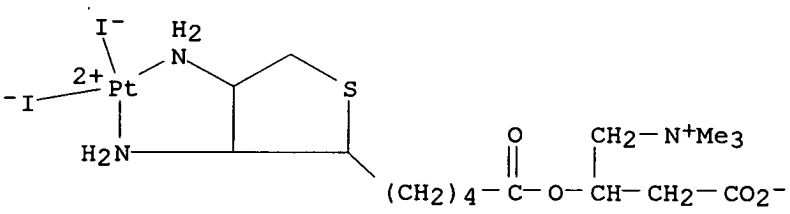


CM 4

CRN 16919-18-9
CMF F6 P
CCI CCS



RN 186253-69-0 CAPLUS
CN Platinum,
[3-carboxy-2-[[5-[3,4-di(amino-.kappa.N)tetrahydro-2-thienyl]-1-oxopentyl]oxy]-N,N,N-trimethyl-1-propanaminiumato]diiodo-,
[SP-4-3-[2S-[2.alpha.(S*),3.alpha.,4.alpha.]]]- (9CI) (CA INDEX NAME)



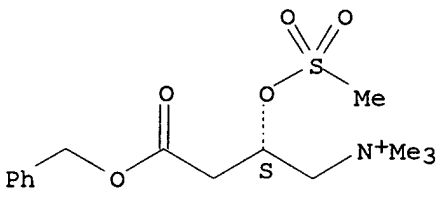
L12 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1996:473565 CAPLUS
DN 125:276450
TI The .beta.-lactone route to a totally stereoselective synthesis of **carnitine** derivatives
AU Bernabei, Ida; Castagnani, Roberto; De Angelis, Francesco; De Fusco, Enrico; Giannessi, Fabio; Misiti, Domenico; Muck, Sandra; Scafetta, Nazareno; Tinti, Maria Ornella

CS Dipl. Chem., Dip. Ricerca Chim., Pomezia, 00040, Italy
SO Chem.--Eur. J. (1996), 2(7), 826-831 Published in: Angew. Chem., Int. Ed. Engl., 35, 13/14
CODEN: CEUJED; ISSN: 0947-6539
DT Journal
LA English
AB The syntheses of the enantiomerically pure, **carnitine**-related .beta.-lactones starting from various **carnitine** precursors of opposite configuration (or **carnitine** itself) are described. (R)-3-Chlorocarnitine has also been directly prepd. from (S)-**carnitine** and has been cyclized to the lactone by a second inversion of configuration of the stereogenic center. By nucleophilic attack at the carbonyl carbon, the .beta.-lactone **carnitine** derivs. have been converted into esters, amides and guanidino congeners. Following this route, it is possible to obtained the biol. active isomer (R)-**carnitine** starting from the otherwise useless industrial byproduct (S)-**carnitine**. Nucleophilic attack by selected ambident nucleophiles at the .beta.-carbon of the same .beta.-lactone derivs. results in a second inversion of configuration of the stereogenic center. Besides aminocarnitine, chiral acetylcarnitine and acetylthiocarnitine have been synthesized in homochiral forms following this latter procedure.
IT **160409-56-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(lactone route to totally stereoselective synthesis of **carnitine** derivs.)
RN 160409-56-3 CAPLUS
CN 1-Butanaminium, N,N,N-trimethyl-2-[(methylsulfonyl)oxy]-4-oxo-4-(phenylmethoxy)-, (S)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

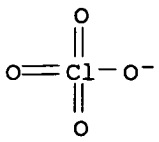
CRN 160409-55-2
CMF C15 H24 N O5 S
CDES 1:S

Absolute stereochemistry.



CM 2

CRN 14797-73-0
CMF Cl O4



L12 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1995:938570 CAPLUS
DN 123:330026
TI Fatigue-relieving agents containing biotin, **carnitine** and pantothenic acid
IN Osada, Kazusane; Tsunoda, Kenji
PA Taisho Pharma Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07233070	A2	19950905	JP 1994-25654	19940223

AB Fatigue-relieving agents contg. biotin (I), **carnitine** (II) and pantothenic acid (III) as active ingredients are claimed. I promotes metab. of lactic acid by activation of pyruvate carboxylase, III as a component of acetyl CoA and II, which promotes excretion of excess acetyl CoA in mitochondria, and their combination is more effective to ameliorate phys. and mental fatigue. A mixt. contg. I 5, II 50, pantethine 50, hydrogenated oil 180, l-menthol 15, and light SiO2 5 mg was made into a granule. Concomitant administration of I500 .mu.g, pantethine 50 mg, and II chloride 100 mg to healthy adult volunteers ameliorated fatigue of anterior tibial muscle induced by leaning backward to the very limit.

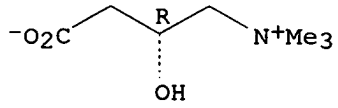
IT **170930-74-2 170930-75-3 170930-76-4**
170930-77-5 170930-78-6
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fatigue-releaving agents contg. biotin, **carnitine**, and pantothenic acid)

RN 170930-74-2 CAPLUS
CN .beta.-Alanine, N-(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)-, (R)-, mixt. with (R)-3-carboxy-2-hydroxy-N,N,N-trimethyl-1-propanaminium inner salt and [3aS-(3a.alpha.,4.beta.,6a.alpha.)]-hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 541-15-1
CMF C7 H15 N O3

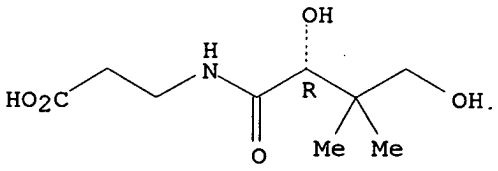
Absolute stereochemistry. Rotation (-).



CM 2

CRN 79-83-4
CMF C9 H17 N O5

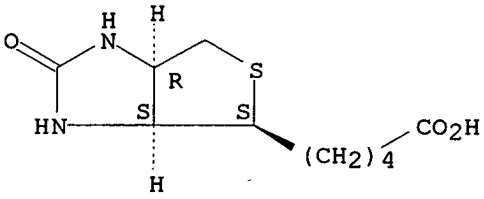
Absolute stereochemistry. Rotation (+).



CM 3

CRN 58-85-5
CMF C10 H16 N2 O3 S

Absolute stereochemistry. Rotation (+).



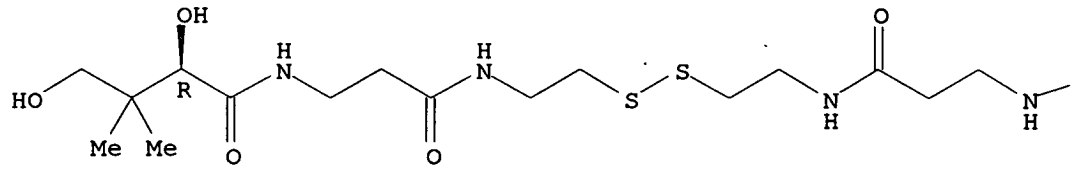
RN 170930-75-3 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-hydroxy-N,N,N-trimethyl-, inner salt, (R)-, mixt. with [R-(R*,R*)]-N,N'-[dithiobis[2,1-ethanediylimino(3-oxo-3,1-propanediyl)]]bis[2,4-dihydroxy-3,3-dimethylbutanamide] and [3aS-(3a.alpha.,4.beta.,6a.alpha.)]-hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanoic acid (9CI) (CA INDEX NAME)

CM 1

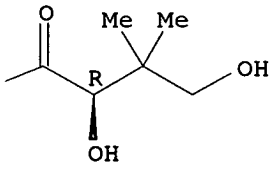
CRN 16816-67-4
CMF C22 H42 N4 O8 S2
CDES 1:R2:R*,R*

Absolute stereochemistry.

PAGE 1-A



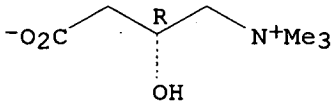
PAGE 1-B



CM 2

CRN 541-15-1
CMF C7 H15 N O3

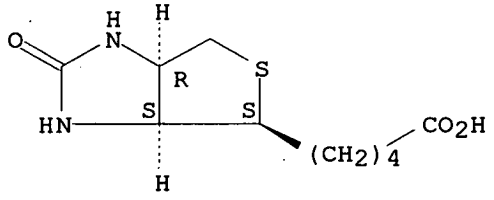
Absolute stereochemistry. Rotation (-).



CM 3

CRN 58-85-5
CMF C10 H16 N2 O3 S

Absolute stereochemistry. Rotation (+).

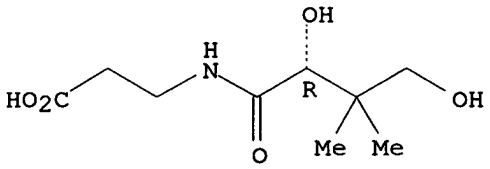


RN 170930-76-4 CAPLUS
CN .beta.-Alanine, N-(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)-, monosodium salt, (R)-, mixt. with 3-carboxy-2-hydroxy-N,N,N-trimethyl-1-propanaminium chloride and [3aS-(3a.alpha.,4.beta.,6a.alpha.)]-hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 867-81-2
CMF C9 H17 N O5 . Na

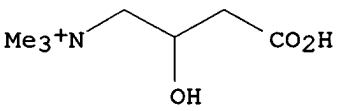
Absolute stereochemistry. Rotation (+).



● Na

CM 2

CRN 461-05-2
CMF C7 H16 N O3 . Cl

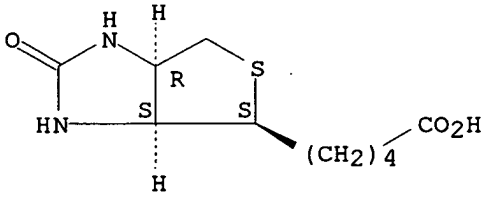


● Cl^-

CM 3

CRN 58-85-5
CMF C10 H16 N2 O3 S

Absolute stereochemistry. Rotation (+).



RN 170930-77-5 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-hydroxy-N,N,N-trimethyl-, chloride, mixt. with [R-(R*,R*)]-N,N'-[dithiobis[2,1-ethanediylimino(3-oxo-3,1-propanediyl)]]bis[2,4-dihydroxy-3,3-dimethylbutanamide] and [3aS-(3a.alpha.,4.beta.,6a.alpha.)]-hexahydro-2-oxo-1H-thieno[3,4-

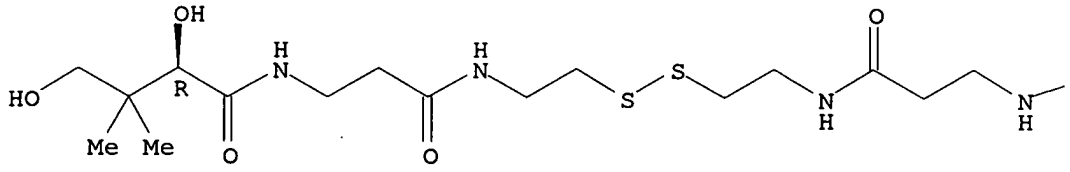
d]imidazole-4-pentanoic acid (9CI) (CA INDEX NAME)

CM 1

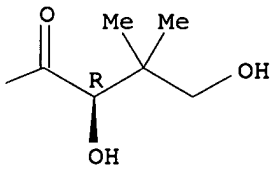
CRN 16816-67-4
CMF C22 H42 N4 O8 S2
CDES 1:R2:R*,R*

Absolute stereochemistry.

PAGE 1-A

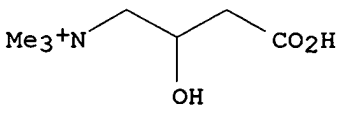


PAGE 1-B



CM 2

CRN 461-05-2
CMF C7 H16 N O3 . Cl

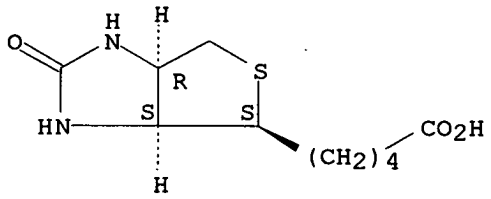


● Cl^-

CM 3

CRN 58-85-5
CMF C10 H16 N2 O3 S

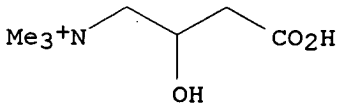
Absolute stereochemistry. Rotation (+).



RN 170930-78-6 CAPLUS
CN .beta.-Alanine, N-(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)-, (R)-, mixt. with 3-carboxy-2-hydroxy-N,N,N-trimethyl-1-propanaminium chloride and [3aS-(3a.alpha.,4.beta.,6a.alpha.)]-hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanoic acid (9CI) (CA INDEX NAME)

CM 1

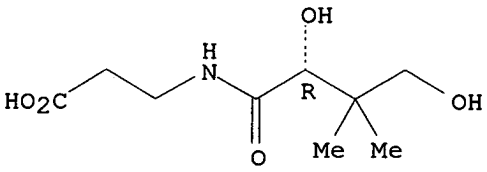
CRN 461-05-2
CMF C7 H16 N O3 . Cl



CM 2

CRN 79-83-4
CMF C9 H17 N O5

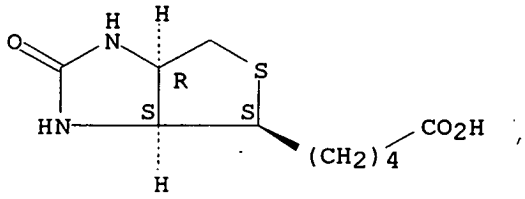
Absolute stereochemistry. Rotation (+).



CM 3

CRN 58-85-5
CMF C10 H16 N2 O3 S

Absolute stereochemistry. Rotation (+).



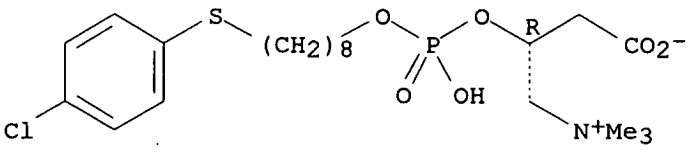
L12 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1995:641004 CAPLUS
DN 123:199145
TI Process for preparing phosphinyloxy propanaminium inner salt derivatives
IN Prashad, Mahavir; Kapa, Prasad K.
PA Sandoz Ltd., Switz.
SO U.S., 20 pp. Continuation of Ser. No. US 93-73407, filed on 7 Jun 1993, now abando
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5412137	A	19950502	US 1994-197050	19940216
			US 1993-73407	19930607

OS MARPAT 123:199145
AB The prepn. of the title compds. R1OP(:X1)(X-)OCH(CH2CO2H)CH2N+R2R3R4 where
X and X1 are independently O or S; R1 is e.g., alkyl, substituted-alkyl; R2, R3, and R4 are each independently straight or branched chain (C1-4)alkyl, and pharmaceutically acceptable salts, physiol. hydrolyzable esters, and pro-drug forms thereof, which are useful as hypoglycemic agents (test data given) are described. A representative prepd. compd. is

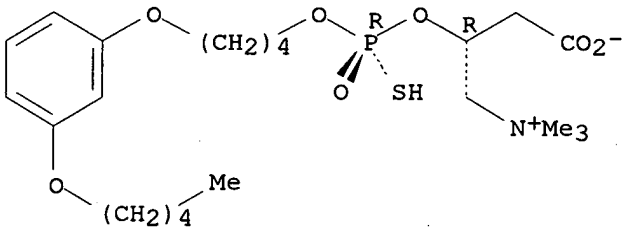
(R)-3-carboxy-N,N,N-trimethyl-2-{[hydroxy(tetradecyloxy)phosphinyl]oxy}-1-propanaminium hydroxide inner salt.
IT **157244-99-0P 157245-37-9P 157245-38-0P**
157245-39-1P 157245-40-4P 157245-61-9P
157245-62-0P 157245-63-1P 157245-64-2P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of phosphinyloxy propanaminium inner salts as hypoglycemics)
RN 157244-99-0 CAPLUS
CN 1-Propanaminium,
3-carboxy-2-[[[[8-[(4-chlorophenyl)thio]octyl]oxy]hydroxy phosphinyl]oxy]-N,N,N-trimethyl-, inner salt, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



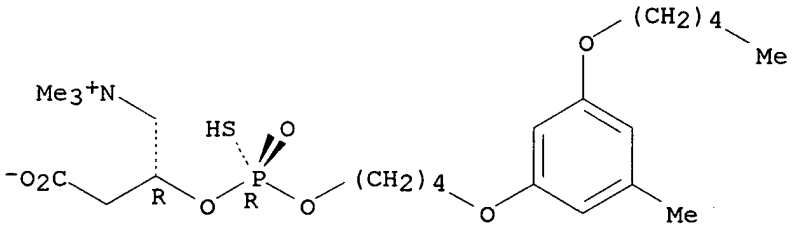
RN 157245-37-9 CAPLUS
CN 1-Propanaminium,
3-carboxy-2-[[mercapto[4-[3-(pentyloxy)phenoxy]butoxy]pho
sphinyl]oxy]-N,N,N-trimethyl-, inner salt, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



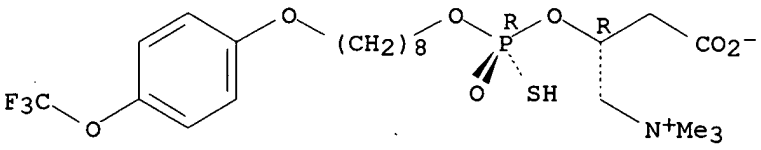
RN 157245-38-0 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-[[mercapto[4-[3-methyl-5-(pentyloxy)phenoxy]butoxy]phosphinyl]oxy]-N,N,N-trimethyl-, inner salt, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



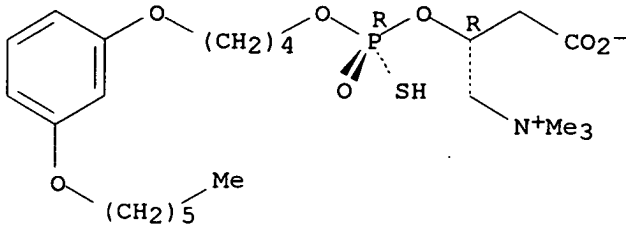
RN 157245-39-1 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-[[mercapto[[8-[4-(trifluoromethoxy)phenoxy]octyl]oxy]phosphinyl]oxy]-N,N,N-trimethyl-, inner salt, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



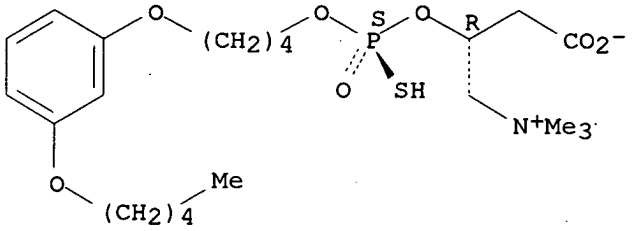
RN 157245-40-4 CAPLUS
CN 1-Propanaminium,
3-carboxy-2-[[[4-[3-(hexyloxy)phenoxy]butoxy]mercaptophos
phinyl]oxy]-N,N,N-trimethyl-, inner salt, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



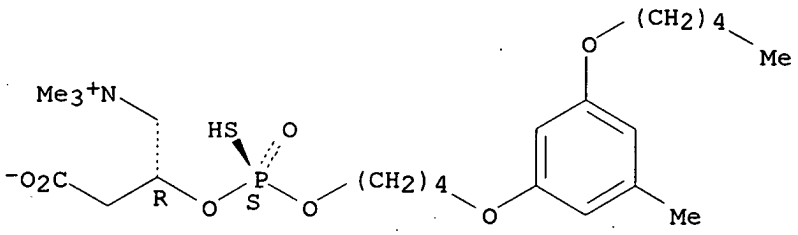
RN 157245-61-9 CAPLUS
CN 1-Propanaminium,
3-carboxy-2-[[mercapto[4-[3-(pentyloxy)phenoxy]butoxy]pho
sphinyl]oxy]-N,N,N-trimethyl-, inner salt, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



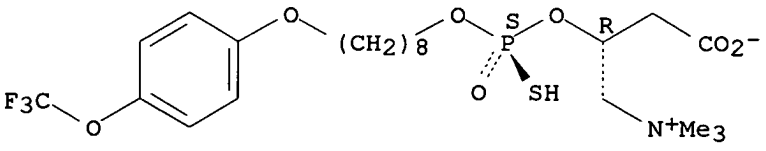
RN 157245-62-0 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-[[mercapto[4-[3-methyl-5-(pentyloxy)phenoxy]butoxy]phosphinyl]oxy]-N,N,N-trimethyl-, inner salt, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



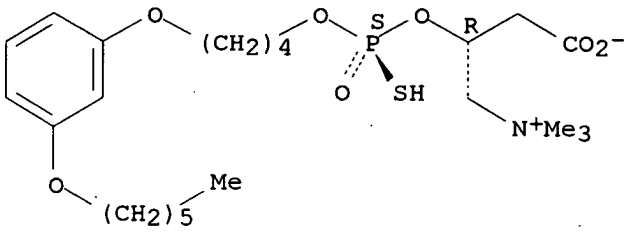
RN 157245-63-1 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-[[mercapto[[8-[4-(trifluoromethoxy)phenoxy]octyl]oxy]phosphinyl]oxy]-N,N,N-trimethyl-, inner salt, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 157245-64-2 CAPLUS
CN 1-Propanaminium,
3-carboxy-2-[[[4-[3-(hexyloxy)phenoxy]butoxy]mercaptophos
phinyl]oxy]-N,N,N-trimethyl-, inner salt, [S-(R*,S*)]- (9CI) (CA INDEX
NAME)

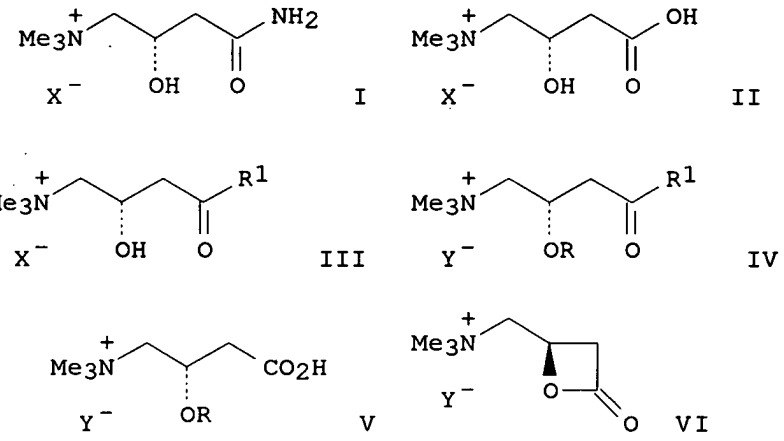
Absolute stereochemistry.



L12 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1995:308713 CAPLUS
DN 122:82071
TI Preparation of L-(-)-**carnitine** from D-(+)-carnitinamide.
IN Giannessi, Fabio; Bolognesi, Maria L.; Tinti, Maria O.; De Angelis,
Francesco
PA SIGMA-TAU Industrie Farmaceutiche Riunite S.p.A., Italy
SO Can. Pat. Appl., 35 pp.
CODEN: CPXXEB
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2111898	AA	19940622	CA 1993-2111898	19931220
				IT 1992-RM915	19921221
	ZA 9309444	A	19940809	ZA 1993-9444	19930328
				IT 1992-RM915	19921221
	EP 609643	A1	19940810	EP 1993-830506	19931215
	EP 609643	B1	19960724		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
				IT 1992-RM915	19921221
	AT 140694	E	19960815	AT 1993-830506	19931215
				IT 1992-RM915	19921221
	ES 2090945	T3	19961016	ES 1993-830506	19931215
				IT 1992-RM915	19921221
	JP 06199751	A2	19940719	JP 1993-319792	19931220
				IT 1992-RM915	19921221
	US 5412113	A	19950502	US 1993-170764	19931221
				IT 1992-RM915	19921221
	US 5599978	A	19970204	US 1995-367863	19950103
				IT 1992-RM915	19921221
				US 1993-170764	19931221

OS CASREACT 122:82071
GI



AB L-(-)-**Carnitine** was prepd. by (1) hydrolysis of D-(+)-carnitinamide (I; X = any counterion) to give D-(+)-**carnitine** (II), (2) esterification of II to give ester [III; R1 = alkoxy, (substituted) aralkoxy, diaralkoxy], (3) acylation of III with RY to give (IV; R = alkylsulfonyl, CHO, F3CO; Y = counterion imparting soly.), (4) ester cleavage of IV to afford V, (5) base-induced lactonization of V to give .beta.-lactone VI, and (6) treatment of the lactone with base. Thus, MeSO2Cl was added to D-(+)-**carnitine** benzyl ester perchlorate in pyridine with ice cooling to give 70% IV (R = OSO2Me, R1 = OCH2Ph, Y = ClO4) , which was converted to IV (R = OSO2Me, R1 = OCH2Ph, Y = Cl) by ion exchange chromatog. The latter was hydrogenolyzed in aq. HCl over Pd/C to give V (R = OSO2Me, Y = Cl); this was stirred with NaHCO3 in H2O to give quant. VI (Y = Cl). This was converted to the methanesulfonate salt, which was stirred with NaHCO3 in H2O to give quant. L-(-)-**carnitine** inner salt.

IT **160409-56-3P**, O-Methanesulfonyl D-(+)-**carnitine** benzyl ester perchlorate **160409-57-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of L-(-)-**carnitine** from D-(+)-carnitinamide)

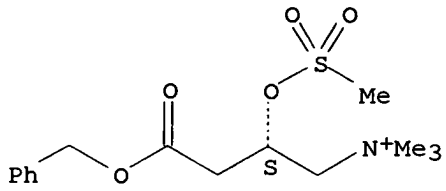
RN 160409-56-3 CAPLUS

CN 1-Butanaminium, N,N,N-trimethyl-2-[(methylsulfonyl)oxy]-4-oxo-4-(phenylmethoxy)-, (S)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

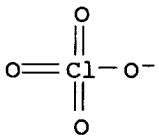
CRN 160409-55-2
CMF C15 H24 N O5 S
CDES 1:S

Absolute stereochemistry.



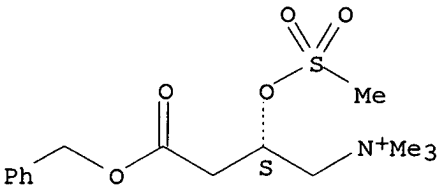
CM 2

CRN 14797-73-0
CMF Cl O4



RN 160409-57-4 CAPLUS
CN 1-Butanaminium, N,N,N-trimethyl-2-[(methylsulfonyl)oxy]-4-oxo-4-(phenylmethoxy)-, chloride, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Cl^-

L12 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1993:678776 CAPLUS
DN 119:278776
TI Use of **carnitine** or acyl **carnitine** in combination with an ACE inhibitor for the treatment of cardiovascular disorders
IN Cavazza, Claudio
PA Sigma-Tau Industrie Farmaceutiche Riunite S. p. A., Italy
SO Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI EP 566542 A1 19931020 EP 1993-830120 19930326
EP 566542 B1 19980422
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
IT 1992-RM222 19920327
CA 2092505 AA 19930928 CA 1993-2092505 19930325
IT 1992-RM222 19920327
JP 06016570 A2 19940125 JP 1993-67971 19930326
IT 1992-RM222 19920327
ZA 9302152 A 19940210 ZA 1993-2152 19930326
IT 1992-RM222 19920327
AT 165241 E 19980515 AT 1993-830120 19930326
IT 1992-RM222 19920327
ES 2116429 T3 19980716 ES 1993-830120 19930326
IT 1992-RM222 19920327
US 5861434 A 19990119 US 1996-612671 19960308
IT 1992-RM222 19920327
US 1993-37359 19930326
US 1994-197453 19940216
US 1994-350188 19941130

AB A compn. in a form suitable for oral, parenteral, rectal, or transdermal administration for the treatment of cardiovascular disorders with a low occurrence of side effects, comprises (1) L-**carnitine**, C2-8-acyl L-**carnitine**, or salts thereof, (2) an angiotensin-converting enzyme inhibitor, and (3) a pharmacol. acceptable excipient. For example, a tablet contained lisinopril 5, L-**carnitine** 100, microcryst. cellulose 250, Mg stearate 20, and lactose 100 mg.

IT **151481-72-0**
RL: BIOL (Biological study)
(cardiovascular diseases treatment with)

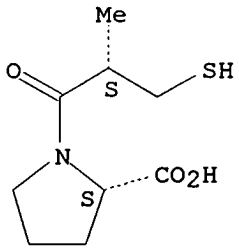
RN 151481-72-0 CAPLUS

CN L-Proline, 1-(3-mercapto-2-methyl-1-oxopropyl)-, (S)-, mixt. with (R)-3-carboxy-2-hydroxy-N,N,N-trimethyl-1-propanaminium inner salt (9CI) (CA INDEX NAME)

CM 1

CRN 62571-86-2
CMF C9 H15 N O3 S
CDES 5:L-(S)

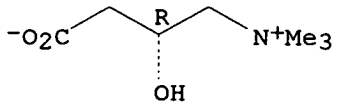
Absolute stereochemistry.



CM 2

CRN 541-15-1
CMF C7 H15 N O3

Absolute stereochemistry. Rotation (-).



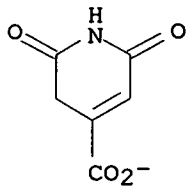
L12 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1992:51571 CAPLUS
DN 116:51571
TI Pharmaceutical compositions active on the cardiovascular system, containing 3-methylthiopropionyl L-**carnitine**
IN Cavazza, Claudio
PA Sigma-Tau Industrie Farmaceutiche Riunite S.p.A., Italy
SO Eur. Pat. Appl., 4 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 448523	A2	19910925	EP 1991-830083	19910311
	EP 448523	A3	19920415		
	EP 448523	B1	19950517		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
				IT 1990-47759	19900315
	ES 2072591	T3	19950716	ES 1991-830083	19910311
				IT 1990-47759	19900315
	JP 04217656	A2	19920807	JP 1991-49907	19910314
				IT 1990-47759	19900315
	US 5173508	A	19921222	US 1991-669573	19910314
				IT 1990-47759	19900315

AB 3-Methylthiopropionyl L-**carnitine** and its pharmacol. acceptable salts are active on the cardiovascular system, particularly in the treatment of myocardial anoxia, cardiac ischemia, arrhythmias, and congestive heart failure. The compds. are administered orally or parenterally at .apprx.5-500 mg.
IT **138590-65-5 138590-75-7**
RL: BIOL (Biological study)
(cardiovascular agent)
RN 138590-65-5 CAPLUS
CN 1-Propanaminium, 3-carboxy-N,N,N-trimethyl-2-[3-(methylthio)-1-oxopropoxy]-, (R)-, salt with 1,2,3,6-tetrahydro-2,6-dioxo-4-pyridinecarboxylic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

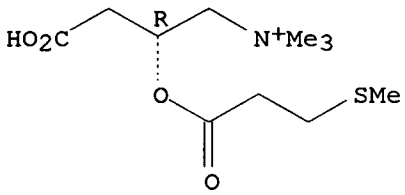
CRN 138590-64-4
CMF C6 H4 N O4



CM 2

CRN 138590-61-1
CMF C11 H22 N O4 S
CDES 1:R

Absolute stereochemistry.

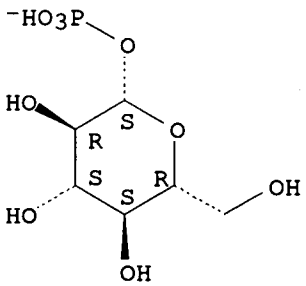


RN 138590-75-7 CAPLUS
CN 1-Propanaminium,
3-carboxy-N,N,N-trimethyl-2-[3-(methylthio)-1-oxopropoxy]-
, (R)-, salt with .beta.-D-glucopyranose 1-(dihydrogen phosphate) (1:1)
(9CI) (CA INDEX NAME)

CM 1

CRN 138590-74-6
CMF C6 H12 O9 P
CDES 5:B-D-GLUCO

Absolute stereochemistry.

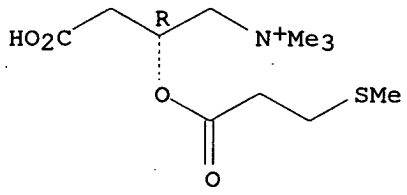


CM 2

CRN 138590-61-1

CMF C11 H22 N O4 S
CDES 1:R

Absolute stereochemistry.



L12 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1991:656641 CAPLUS
DN 115:256641
TI Preparation of methionylcarnitines as cardiovascular agents
IN Tinti, Maria Ornella; Misiti, Domenico; Cavazza, Claudio
PA Sigma-Tau Industrie Farmaceutiche Riunite S.p.A., Italy
SO Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

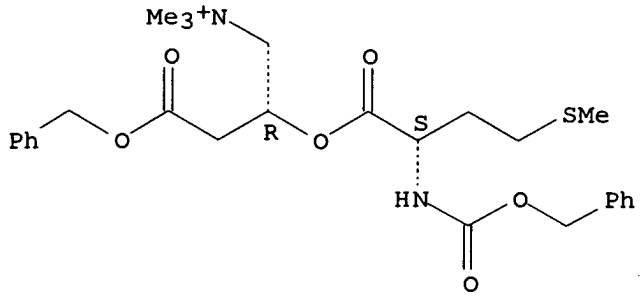
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 446185	A1	19910911	EP 1991-830070	19910304
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
			IT 1990-47724	19900306
JP 04279561	A2	19921005	JP 1991-40100	19910306
			IT 1990-47724	19900306

AB L-Methionyl-L-**carnitine** (I) and its salts were prepd. as cardiovascular agents (no data). Thus, N-carbobenzoxy-L-methionine was dissolved in anhyd. THF and N,N'-dicarbonylimidazole was added at 0.degree.. Dimethylaminopyridine and a soln. of L-**carnitine** benzyl ester perchlorate was added and the mixt. was stirred 48 h at room temp. to give N-carbobenzoxy-L-methionyl-L-**carnitine** benzyl ester perchlorate. This was converted to the chloride, then HCl was added, and the soln. hydrogenated to give I chloride hydrochloride.
IT **137338-99-9P 137339-00-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for cardiovascular agent)
RN 137338-99-9 CAPLUS
CN L-Methionine, N-[(phenylmethoxy)carbonyl]-, 3-oxo-3-(phenylmethoxy)-1-[(trimethylammonio)methyl]propyl ester, (R)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

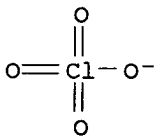
CRN 137338-98-8
CMF C27 H37 N2 O6 S
CDES 5:L-(R)

Absolute stereochemistry.



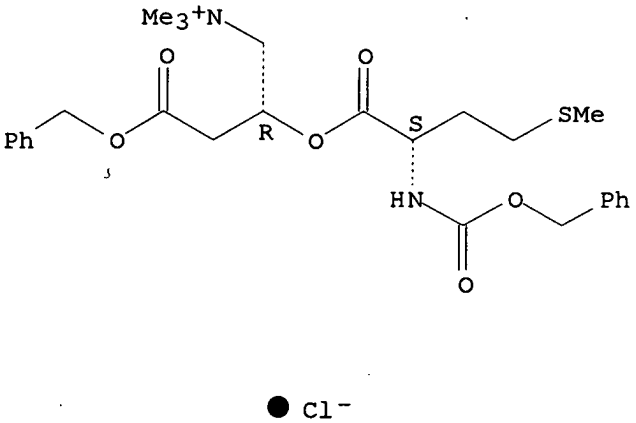
CM 2

CRN 14797-73-0
CMF Cl O4



RN 137339-00-5 CAPLUS
CN L-Methionine, N-[(phenylmethoxy)carbonyl]-, 3-oxo-3-(phenylmethoxy)-1-[(trimethylammonio)methyl]propyl ester, chloride, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Cl⁻

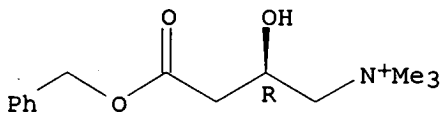
L12 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1991:164734 CAPLUS
DN 114:164734
TI A new, short and efficient synthesis of both enantiomers of **carnitine**
AU Bellamy, F. D.; Bondoux, M.; Dodey, P.

CS Res. Cent., Lab. Fournier, Daix, 21121, Fr.
SO Tetrahedron Lett. (1990), 31(50), 7323-6
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
OS CASREACT 114:164734
AB A short, efficient and enantioselective synthesis of both (R) and (S) enantiomers of **carnitine** is reported starting with (R)- and (S)-malic acid and involving a regioselective redn. step.
IT **133039-07-3P 133099-38-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and catalytic hydrogenolysis of)
RN 133039-07-3 CAPLUS
CN 1-Butanaminium, 2-hydroxy-N,N,N-trimethyl-4-oxo-4-(phenylmethoxy)-, (R)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

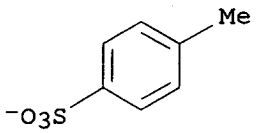
CRN 113760-82-0
CMF C14 H22 N O3
CDES 1:R

Absolute stereochemistry.



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S

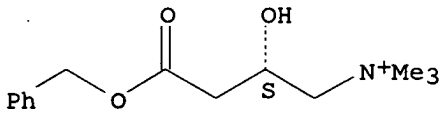


RN 133099-38-4 CAPLUS
CN 1-Butanaminium, 2-hydroxy-N,N,N-trimethyl-4-oxo-4-(phenylmethoxy)-, (S)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

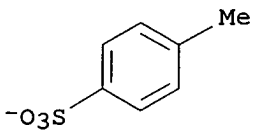
CRN 133099-37-3
CMF C14 H22 N O3
CDES 1:S

Absolute stereochemistry.



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S

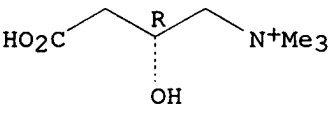


IT **133039-08-4P 133039-09-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 133039-08-4 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-hydroxy-N,N,N-trimethyl-, (R)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

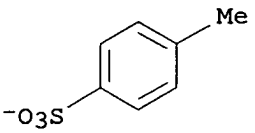
CRN 44984-08-9
CMF C7 H16 N O3

Absolute stereochemistry. Rotation (-).



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S

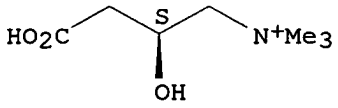


RN 133039-09-5 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-hydroxy-N,N,N-trimethyl-, (S)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

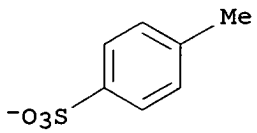
CRN 44985-79-7
CMF C7 H16 N O3
CDES 1:S

Absolute stereochemistry.



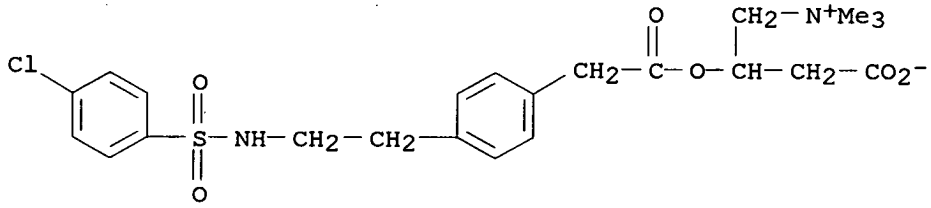
CM 2

CRN 16722-51-3
CMF C7 H7 O3 S

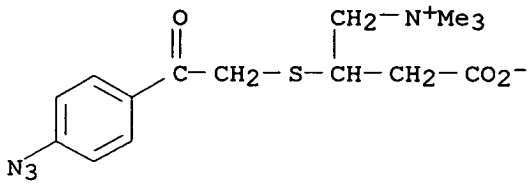


L12 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1990:490783 CAPLUS
DN 113:90783
TI Analysis of xenobiotic conjugates by thermospray liquid chromatography/mass spectrometry
AU Dulik, Deanne M.; Kuo, George Y.; Davis, Margaret R.; Rhodes, Gerald R.
CS Dep. Drug Metab., Smith, Kline and French Res. Lab., Swedeland, PA, 19479, USA
SO ACS Symp. Ser. (1990), 420(Liq. Chromatogr./Mass Spectrom.), 124-39
CODEN: ACSMC8; ISSN: 0097-6156
DT Journal
LA English
AB Pos. ion thermospray liq. chromatog./mass spectrometry and liq. chromatog./mass spectrometry/mass spectrometry anal. of xenobiotic conjugates obtained either from biol. fluids or from enzymic-chem. synthesis provides important information for the structure elucidation of this class of polar compds. Conjugate metabolites amenable to thermospray liq. chromatog./mass spectrometry anal. include sulfate esters, glucuronides, taurine and **carnitine** conjugates. Thermospray ionization of these metabolites is best achieved in acidic buffers such as ammonium acetate; mol. ions are obsd. as [M+H]+ or [M+NH4]+. Fragment ions are typically formed by loss of the conjugate moiety. Further structural information may be obtained through fragmentation of sample ions by collision-activated dissocn.
IT **128855-47-0**

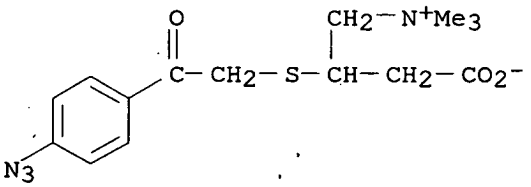
RL: FORM (Formation, nonpreparative)
(formation of, as SKF 96148 metabolite, thermospray liq. chromatog./mass spectrometry in detn. of)
RN 128855-47-0 CAPLUS
CN 1-Propanaminium, 3-carboxy-2-[[[4-[2-[[(4-chlorophenyl)sulfonyl]amino]ethyl]phenyl]acetyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



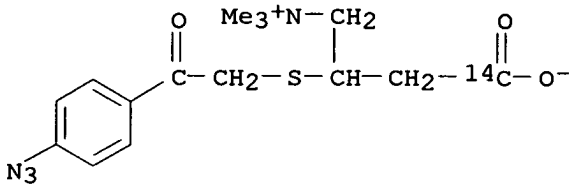
L12 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1988:469085 CAPLUS
DN 109:69085
TI S-(p-Azidophenacyl)thiocarnitine specifically binds to the .gamma.-butyrobetaine-binding protein of Agrobacterium sp. and can be used as a photoaffinity label
AU Nobile, S.; Baccino, D.; Deshusses, J.
CS Dep. Biochem., Univ. Geneva, Geneva, CH-1211/4, Switz.
SO FEBS Lett. (1988), 233(2), 335-8
CODEN: FEBLAL; ISSN: 0014-5793
DT Journal
LA English
AB The photoaffinity reagent S-(p-azidophenacyl)thiocarnitine (PAP-TC) was synthesized according to J. Mauro et al. (1986). This compd., originally designed for a structure-function study of **carnitine** acetyltransferase, was used to analyze the Agrobacterium sp. .gamma.-butyrobetaine transport system. PAP-TC appears to be a reagent specific to the transport system since it showed a competitive inhibition (Ki = 70 .mu.M) of .gamma.-butyrobetaine transport. UV irradn. of periplasmic proteins in the presence of [14C]PAP-TC resulted in the irreversible labeling of the .gamma.-butyrobetaine-binding protein. The addn. of 1 mM .gamma.-butyrobetaine in the mixt. significantly decreased the incorporation of the reagent, showing that this compd. reacts specifically with the binding protein.
IT **104061-09-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and butyrobetaine-binding protein of Agrobacterium photolabeling by)
RN 104061-09-8 CAPLUS
CN 1-Propanaminium, 2-[[2-(4-azidophenyl)-2-oxoethyl]thio]-3-carboxy-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



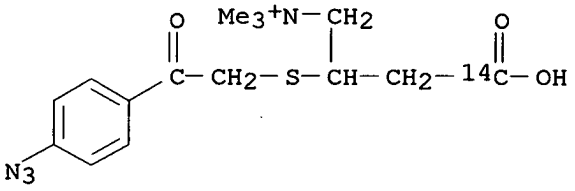
L12 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1986:511033 CAPLUS
DN 105:111033
TI Photoaffinity labeling of **carnitine** acetyltransferase with S-(p-azidophenacyl)thiocarnitine
AU Mauro, J. Matthew; Lewis, Randolph V.; Barden, Roland E.
CS Dep. Chem., Univ. Wyoming, Laramie, WY, 82071, USA
SO Biochem. J. (1986), 237(2), 533-40
CODEN: BIJOAK; ISSN: 0306-3275
DT Journal
LA English
AB A photolabile reagent, p-azidophenacyl-DL-thiocarnitine, was synthesized and tested as a photoaffinity label for **carnitine** acetyltransferase (EC 2.3.1.7) from pigeon breast. p-Azidophenacyl-DL-thiocarnitine is an active-site-directed reagent for this acetyltransferase, since it is a competitive inhibitor (Ki 10 .mu.M) vs. **carnitine**. UV irradn. of a mixt. of p-azidophenacyl-DL-thiocarnitine and enzyme produces irreversible inhibition. Acetyl-DL-**carnitine** protects the enzyme from inhibition by photoactivated p-azidophenacyl-DL-thiocarnitine. In the presence of 30 mM 2-mercaptoethanol as a scavenger, the relation between loss of activity and photoincorporation of reagent suggests that 1 mol. of reagent is incorporated per mol. of inhibited enzyme. However, peptide maps of enzyme labeled with p-azidophenacyl[14C]thiocarnitine indicate that several (.apprx.6) tryptic peptides (of a possible 60-65) are modified. The presence of 5 mM acetyl-DL-**carnitine** significantly decreases the incorporation of reagent in each labeled tryptic peptide.
IT **104061-09-8P 104061-10-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and photoreaction with **carnitine** acetyltransferase)
RN 104061-09-8 CAPLUS
CN 1-Propanaminium, 2-[[2-(4-azidophenyl)-2-oxoethyl]thio]-3-carboxy-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 104061-10-1 CAPLUS
CN 1-Propanaminium, 2-[[2-(4-azidophenyl)-2-oxoethyl]thio]-3-(carboxy-14C)-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



IT **104061-11-2**
RL: RCT (Reactant)
(reaction of, with azidophenacylbromide)
RN 104061-11-2 CAPLUS
CN 1-Propanaminium, 2-[[2-(4-azidophenyl)-2-oxoethyl]thio]-3-(carboxy-14C)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



L12 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2001 ACS
AN 1983:72738 CAPLUS
DN 98:72738
TI Mercaptoacylcarnitine esters and their therapeutic use
PA Sigma-Tau Industrie Farmaceutiche Riunite S.p.A., Italy
SO Belg., 15 pp.
CODEN: BEXXAL
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	BE 892602	A1	19820716	BE 1982-207643	19820323
				IT 1981-48166	19810331
	GB 2096136	A	19821013	GB 1982-7449	19820315
	GB 2096136	B2	19850403		
				IT 1981-48166	19810331
	DE 3209330	A1	19821021	DE 1982-3209330	19820315
	DE 3209330	C2	19900523		
				IT 1981-48166	19810331
	US 4567200	A	19860128	US 1982-358502	19820315
				IT 1981-48166	19810331
	CA 1167864	A1	19840522	CA 1982-398990	19820322
				IT 1981-48166	19810331
	CH 656873	A	19860731	CH 1982-1819	19820324

			IT 1981-48166	19810331
SE 8201954	A	19821001	SE 1982-1954	19820326
SE 448539	B	19870302		
SE 448539	C	19870611		
			IT 1981-48166	19810331
DK 8201449	A	19821001	DK 1982-1449	19820330
DK 165685	B	19930104		
DK 165685	C	19930601		
			IT 1981-48166	19810331
NL 8201320	A	19821018	NL 1982-1320	19820330
			IT 1981-48166	19810331
ES 510927	A1	19830801	ES 1982-510927	19820330
			IT 1981-48166	19810331
AT 8201248	A	19870315	AT 1982-1248	19820330
AT 384213	B	19871012		
			IT 1981-48166	19810331
FR 2503149	A1	19821008	FR 1982-5580	19820331
FR 2503149	B1	19850726		
			IT 1981-48166	19810331
JP 57176949	A2	19821030	JP 1982-54752	19820331
JP 02051903	B4	19901108		
			IT 1981-48166	19810331
IL 65396	A1	19841031	IL 1982-65396	19820331
			IT 1981-48166	19810331

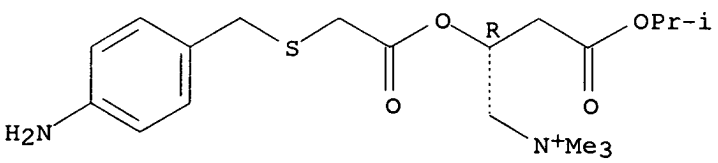
AB Me3N+CH2CH(OR)CH2CO2R1.X- (I; R = mercaptoacyl, R1 = alkyl, X = halo) were prepd. for use as mucolytic agents and in the treatment of burns and of disorders of the respiratory system and of the epithelium (data tabulated). Thus, **carnitine** iso-Pr ester hydrochloride was esterified with p-O2NC6H4CH2SCH2COCl to give I (R = p-O2NC6H4CH2SCH2CO, R1 = Me2CH, X = Cl). The nitrobenzyl group was removed by redn. of the NO2 group and then treatment with Hopkins reagent and with H2S to give I (R = HSCH2CO, R1 = Me2CH, X = Cl).

IT **83544-88-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and debenzylation of)

RN 83544-88-1 CAPLUS

CN 1-Butanaminium, 2-[[[[(4-aminophenyl)methyl]thio]acetyl]oxy]-N,N,N-trimethyl-4-(1-methylethoxy)-4-oxo-, chloride, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

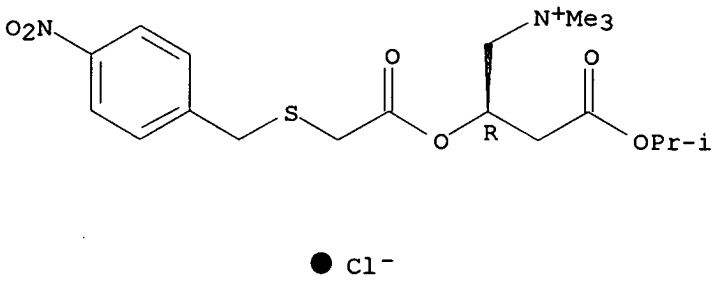


● Cl⁻

IT **83544-87-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and redn. of)
RN 83544-87-0 CAPLUS
CN 1-Butanaminium, N,N,N-trimethyl-4-(1-methylethoxy)-2-[[[[(4-nitrophenyl)methyl]thio]acetyl]oxy]-4-oxo-, chloride, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d his

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L3 8 S L1 SAM SUB=L2
L4 129 S L1 FULL SUB=L2

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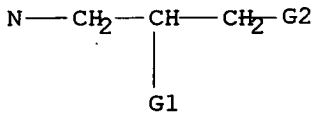
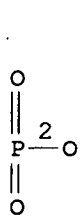
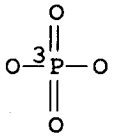
L5 0 S CARNITINE PALMITOYAL-TRANSFERASE
L6 22 S CARNITINE TRANSFERASE?
L7 19 S CARNITINE TRANSFERASE
L8 22 S CARNITINE TRANSFERASE?
L9 0 S CARNITINE TRANSFERASE INHIBITOR?
L10 0 S L4 AND L8
L11 64 S L4
L12 15 S L11 AND CARNITINE

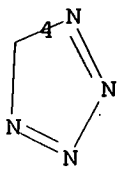
=> d l1

L1 HAS NO ANSWERS
L1 STR









G1 O,S,N

G2 [@1],[@2],[@3],[@4]

Structure attributes must be viewed using STN Express query preparation.